WHAT IS CLAIMED IS:

	1. A method for processing signals in an RF subsystem to				
)	eliminate the need for a low noise amplifier therein, the method comprising:				
3	providing a plurality of intercoupled micromechanical devices; and				
ŀ	vibrating the micromechanical devices to initially pass a desired				
5 .	frequency range of signals while substantially attenuating signals outside the desired				
5	frequency range and then to convert and filter the desired frequency range of signals				
7	without the need for the low noise amplifier.				
	2. The method as claimed in claim 1 wherein the low noise				
·)	amplifier is an RF low noise amplifier.				
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	3. An RF receiver subsystem which eliminates the need for a low				
)	noise amplifier therein, the subsystem comprising:				
- 1	an image-reject vibrating micromechanical filter for passing a desired				
, 1					
· .	frequency range of signals while substantially attenuating signals outside the desired				
) -	frequency range; and				
-	a vibrating micromechanical mixer-filter coupled to the filter and				
7	adapted to be coupled to electronics for converting and filtering the desired				
3	frequency range of signals without the need for the low noise amplifier.				
l	4. The subsystem as claimed in claim 3 wherein the low noise				
2	amplifier is an RF low noise amplifier.				
l	5. The subsystem as claimed in claim 3 wherein the filter is a				
2	relatively wide band filter and the mixer-filter is a narrow band mixer-filter.				
l	6. An RF receiver subsystem which eliminates the need for a low				
2	noise amplifier, the subsystem comprising:				
3	a vibrating micromechanical frequency range selector for passing a				
1	desired frequency range of signals while substantially attenuating signals outside the				
5	desired frequency range; and				

6	a vibrating micromechanical mixer-filter coupled to the selector and				
7	adapted to be connected to electronics for converting and filtering the desired				
8	frequency range of signals without the need for the low noise amplifier.				
1	7. The subsystem as claimed in claim 6 wherein the low noise				
2	amplifier is an RF low noise amplifier.				
1	8. An RF transceiver subsystem which substantially reduces the				
2	need for RF front-end power, the subsystem comprising:				
3	a vibrating micromechanical frequency range selector for passing a				
4	desired frequency range of signals while substantially attenuating signals outside the				
5	desired frequency range; and				
6	a vibrating micromechanical mixer-filter coupled to the selector and				
7	adapted to be connected to electronics for converting and filtering signals wherein				
8	the need for RF front-end power is substantially reduced.				
1	9. In an RF receiver subsystem, a micromechanical mixer-filter				
2	apparatus for converting and filtering an information signal having a frequenc				
3	without the need for a front end filter, the apparatus comprising:				
4	a mixing micromechanical transducer having a first port for receiving				
5	the information signal, a second port for receiving an AC signal having a desired				
6	frequency and an output port; and				
7	a micromechanical resonator coupled to the transducer wherein the				
8	apparatus converts the frequency of the information signal based on the desired				
9	frequency and filters the information signal without the need for a front end filter.				
1	10. The apparatus as claimed in claim 9 wherein the apparatus				
2 .	also adds gain to the information signal.				
1	11. The apparatus as claimed in claim 9 wherein the transducer				
2	and the resonator are intercoupled by a non-conductive part to isolate the first and				
3	second ports				

1 .		14.	The apparatus as claimed in claim 9 further comprising means		
2	for isolating each of the ports from each of the other ports.				
1		13.	The apparatus as claimed in claim 9 wherein the resonator is		
2	switchable an	d tunab	le.		
1		14.	The apparatus as claimed in claim 9 wherein the apparatus is		
2	an image-reject mixer filter that initially rejects an image while mixing and then				
3	filters.				
1		15.	In an RF receiver subsystem, a method for converting and		
2_	filtering an information signal having a frequency without the need for a front end				
3	filter, the method comprising:				
4		provid	ling a micromechanical device having a first port for receiving		
5	the information signal, a second port for receiving an AC signal having a desired				
6	frequency and an output port; and				
7	vibrating the micromechanical device so that the micromechanical				
8	device conve	rts the	frequency of the information signal based on the desired		
9	frequency and	d filters	the information signal.		
1		16.	The method of claim 15 further comprising isolating the first		
2	port from the second port.				
1		17.	The method of claim 15 further comprising isolating each of		
2	the ports from each of the other ports.				
1		18.	The method of claim 15 wherein the micromechanical device		
2	is vibrated to	also ad	d gain to the information signal.		
1	·	19.	The method of claim 15 wherein the device is switchable and		
2	tunable.				